

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 10-15 are added by the present amendment, and are now pending in this application. Support for the added claims is found at least in original claims 1-9, at page 6, line 21- page 7, line 6, at page 17, lines 15-22, page 40, lines 10-16, and at Example 12 on pages 57 and 58. Claims 1-9 are canceled by the present amendment.

In the outstanding Office Action, Claims 3-5, 8, and 9 were rejected under the doctrine of nonstatutory double patenting over claims 1-4 of U.S. Patent No. 6,475,405. Claims 1-9 were rejected under 35 U.S.C. § 103(a) as obvious over Sasaki, U.S. 4,267,064, and Uchinuma, U.S. 4,248,726. Claims 1 and 2 were rejected under 35 U.S.C. § 103(a) as obvious over UK Patent Application 2,121,818.

Applicants herein cancel claims 1-9, and add new claims 10-15. This amendment renders the outstanding rejections moot.

New Claim 10 is directed to a lubricating oil for compression-type refrigerators. The oil comprises, as a main component, a polyoxyalkyleneglycol derivative having the formula $\text{CH}_3-(\text{OC}_3\text{H}_6)_m-\text{OCH}_3$, where m is an integer of 1 to 80. The polyoxyalkyleneglycol derivative has a kinematic viscosity of 2 to 24 cSt at 100°C. Claims 11, 14, and 15 depend from claim 10. Further, claim 12 includes all the limitations of claim 10, and claim 13 depends from claim 12. Thus, all of the presently active claims necessarily include all the limitations of claim 10.

Applicants believe claim 10 is patentable over the references cited in the outstanding office action. None of the cited references specifically disclose polyoxyalkyleneglycol derivatives having methyl groups on both ends. Sasaki discloses a polyglycol oil in which the two end groups might be essentially any of a hydrogen atom, or a hydrocarbon radical or

acyl group. Sasaki provides no teaching, suggestion, or guidance for the selection of any particular hydrocarbon group, and specifically does not disclose methyl groups. Uchinuma teaches a similar lubricant, again failing to teach or suggest methyl groups on both ends of a polyoxyalkyleneglycol derivative. And UK Patent Application 2,121,818 also fails to specifically teach or suggest a lubricant comprising a polyoxyalkyleneglycol derivative having methyl groups on both ends.

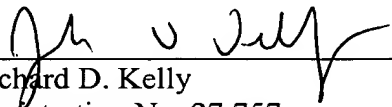
Further, none of the cited references disclose lubricating oils comprising a polyoxyalkyleneglycol derivative having the formula $\text{CH}_3-(\text{OC}_3\text{H}_6)_m-\text{OCH}_3$, with a kinematic viscosity of 2 to 24 cSt at 100°C. In contrast to the cited references, an object of the present invention is to produce an oil having lower viscosity at high temperatures. The present specification teaches a preferred viscosity of as low as 2 cSt at 100°C, clearly below the viscosities taught or suggested by either Sasaki, Uchinuma, or the UK application. The UK reference teaches higher viscosities (between 100 and 2000 cS) at 38°C. Not only do the Sasaki and Uchinuma references not teach or suggest the low viscosities of the present invention, these references actually teach away from the present invention. Sasaki discloses that oils having viscosities of less than 25 to 50 cSt at 98.9°C “would lead to objectional results”. Col. 3, lines 18-22. Likewise, Uchinuma teaches that oils with viscosities lower than the range of 50 to 200 cSt at 98.9°C “will result in the production of a refrigerator oil having unsatisfactory sealability”. Col. 3, lines 44-47. Clearly, these references do not teach or suggest the present invention.

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In light of the above discussion, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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